

the life-histories. It is evident from my study of the genitalia that we need large series of specimens, field notes and life-histories before we can list forms, races or species on our present scanty knowledge, as at present it is more or less individual opinion. I have made the male, from which I prepared my best slide, as the type, in case the true *vitalbata* D. & S. should occur in North America.

Expanse 27–29 mm.

Holotype ♂ — VI — 5, 1914, Calgary, Alberta, from Mr. Wolley Dod.

Allotype ♀ — VI — 26, 1907, Calgary, Alberta, from Mr. Wolley Dod.

Paratype ♀ — VI — 26, 1914, Calgary, Alberta, from Mr. Wolley Dod.

All the above are in my collection.

NOTE ON THE ICHNEUMONID GENERA CYANOCRYPTUS AND LAMPROCRIPTUS.

BY CHARLES T. BRUES.

When collecting insects in the Peruvian Andes several years ago, I secured a large metallic blue Ichneumonid which proves to be the female of *Cyanocryptus metallicus*, a species described by Cameron in 1903 from a male specimen collected in Ecuador. Since then I have received through Dr. F. E. Lutz of the American Museum of Natural History a quite similar insect from Southern Patagonia apparently referable to Cameron's genus *Lamprocryptus*, which can hardly be separated from *Cyanocryptus*.

Since the female of *Cyanocryptus metallicus* has not been described and as there is some confusion concerning the name *Lamprocryptus*, the following note is presented.

• CYANOCRYPTUS CAMERON.

The Entomologist, Vol. 36, p. 121 (1903).

Schmiedeknecht, Opus. Ichneum., fasc. VI, p. 415 (1904).

Schmiedeknecht, Gen. Insect., fasc. 75, p. 13 (1909).

Type: *C. metallicus* Cameron.

Cyanocryptus metallicus Cameron

The Entomologist, Vol. 36, p. 121 (1903) (♂).

Female. Length 19 mm., ovipositor 10 mm. Brilliant metallic blue; head and thorax with purplish reflections, especially on the cheeks and propodeum; first two segments of abdomen strongly purplish; remaining ones bluish; antennæ black with a white annulus from the middle of the second flagellar joint to the tip of the ninth, the second and basal half of the third black above. Tarsi, palpi, mandibles, and ovipositor with its sheaths black; four anterior tibiæ dark brown, with but little metallic color. Wings black, with brilliant blue and purple reflections. Antennæ slender, tapering; first flagellar joint four times as long as thick; second and third but little shorter; fourth half as long as the first, fifth and sixth each slightly shorter. Propodeum coarsely reticulated, with well developed, but not large lateral teeth; without complete transverse carinæ, but with the anterior one indicated medially as a short curved ridge bent forward at the middle where it is contiguous to a very small basal area. Abdomen shining, microscopically roughened and punctulate but not sufficiently so to render its surface opaque. Transverse median vein almost interstitial with the basal vein, the submedian cell barely longer.

Aside from the position of the transverse median vein which Cameron describes as "not interstitial" and the abdomen which is "shining, impunctate" in the male there are no conspicuous differences between the sexes. The female I took near Matucana, Peru at an altitude of 7,500 feet. The male type from Ecuador was taken at between 7,000 and 8,000 feet altitude. This insect is evidently common in the Peruvian Andes as I saw numerous specimens in Professor Townsend's collection taken by him in the same part of Peru.

LAMPROCRYPTUS SCHMIEDEKNECHT.

Opusc. Ichneum., fasc. VI, p. 414 (1904) (no species).

Schmiedeknecht, Gen. Insect. fasc. 75, p. 11, pl. 1, fig. 7, pl. II, fig. 5 (1908) (six species described).

Viereck, Bull. U. S. Nat. Mus., No. 83, p. 81 (type species designated).

Type: *L. gracilis* Schmiedeknecht.

LAMPROCRYPTUS CAMERON.

Trans. Amer. Ent. Soc., Vol. 35, p. 435 (1909).

Type: *L. kinbergi* Holmgren.

Schmiedeknecht first used the name in 1904 in his *Opuscula Ichneumonologica* without designating any type. In the *Genera Insectorum* (1909) he again lists "*Lamprocryptus* nov. gen." and describes six species, one of which has been designated as the genotype by Viereck who dates the genus from 1904.

Cameron used the name in December 1909 and refers to the generic key in Schmiedeknecht's 1904 paper, but through a peculiar *lapsus* attaches the name *Lamprocryptus* to his new genus. As Cameron's genus hardly seems distinct from *Cyanocryptus* it appears unnecessary at the present time to propose a new name.

Several South American species, including the new one described below, may be tentatively placed in *Cyanocryptus*, as follows.

C. metallicus Cameron (type). *Entomologist*, Vol. 36, p. 122 (1903). Ecudoris Peru.

C. kinbergi Holmgren (type of *Lamprocryptus* Cameron). *Eugenias Resa, Ins.*, p. 397 (1868) Argentina.

C. chalybeus Tasch. *Zeits. f. d. ges. Naturw.*, Vol. 48, p. 63 (1876) Argentina.

C. sericeus Tasch. *Ibid. l. c.* Argentina.

C. fulgidus sp. nov. South Patagonia.

Cyanocryptus fulgidus sp. nov.

Female. - Length 11 mm., ovipositor 6 mm. Brilliant metallic blue with violaceous reflections, the latter most noticeable on the head, upper surface of thorax and on the first three segments of abdomen; antennæ black, without annulus; hind femora and tibiæ bright ferruginous; front femora beneath and their tibiæ entirely ferruginous; middle tibiæ dull ferruginous; all tarsi black, the trochanters and the four anterior femora with the metallic reflections much less pronounced than on the body. Wings deeply infuscated, but not black. Head seen from above strongly emarginate both on the front and the occiput, the paired ocelli widely separated, farther from one another than from the eye margin. Face strongly convex medially, with a sharp depression on each side next to the eye below the insertion of the an-

tenna, face rather finely and closely striato-punctate medially, more sparsely and coarsely punctate laterally; clypeus strongly convex, with a few large punctures; front reticulate medially to the ocelli, on the sides smooth and almost impunctate as are also the back of head and cheeks. Malar space one-third as long as the eye, not grooved, but with finely sculptured band from the eye to the mandible. Antennæ 50-jointed, slender and tapering, not distinctly thickened medially; first, second and third flagellar joints gradually shorter, the third three times as long as thick and as long as the two following together; following all distinctly wider than long. Mesonotum polished, with a few scattered punctures on the anterior half, those on the median lobe closer together and elongated to form a semi-striate sculpture; parapsidal furrows strong on anterior half, entirely absent behind. Scutellum strongly convex, with a deep impression at base that is bounded by high lateral carinæ and bears a series of square foveæ at its bottom. Propodeum coarsely irregularly rugose-reticulate, with large flattened teeth at the posterior angles; anterior transverse carina very weak, but complete; posterior slope deeply concave, the concavity extending above the lateral spines; viewed from the side the declivity is almost as long as the dorsal surface and nearly perpendicular. Propleuræ almost smooth at top, elsewhere coarsely more or less horizontally wrinkled; mesopleura with a shining callosity at its upper posterior angle and a series of oblique wrinkles along the posterior edge, elsewhere irregularly rugose-reticulate, as are also the metapleuræ and sides of the propodeum. Abdomen entirely smooth, impunctate and without trace of aciculations or other fine sculpture. Petiole sharply bent, strongly expanded at tip, with a complete carina passing through the spiracles and a large crescentic impression above each spiracle. Second segment with a curved impressed line on each side below the spiracle and a less distinct one passing through the spiracle. Tarsi and middle tibiæ strongly spinulose. Areolet large, its sides weakly convergent above; radial cell short and narrow; submedian cell barely shorter than the median; discocubital vein simple; cubital vein entirely wanting beyond the areolet, transverse median vein in hind wing broken near lower third.

Type: South Patagonia, B. Brown; in the American Museum of Natural History.

The following key will serve to separate the species of this group:

1. Antennæ annulate with white 2
 Antennæ not annulate *fulgidus* sp. nov.
2. Legs entirely black *metallicus* Cam.
 Legs partly ferruginous or rufous 3
3. Abdomen minutely transversely aciculate 4
 Abdomen polished, without any sculpture .. *chalybeus* Tasch.
4. "Thorax rugulose-granulate, mesonotum and scutellum smoother" *kinbergi* Holm.
 "Mesonotum densely, somewhat longitudinally, striate punctate" *sericeus* Tasch.

NOTE ON THE ADULT HABITS OF SOME HYMENOPTEROUS EGG-PARASITES OF ORTHOPTERA AND MANTOIDEA.

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In a recent number of the *Bulletin de la Société Entomologique de France*¹ Dr. Ét. Rabaud has called attention to an omission in a recent paper of my own,² in which I failed to cite some observations of similar nature by French naturalists. In this paper I described an Indian Scelionid which attaches itself to the body of a locust and suggested that it probably had adopted this method of finding the eggs of locusts, upon which members of allied genera are known to be parasitic.

As Dr. Rabaud has assumed a rather critical attitude, I think it worth while to review the matter briefly. In the first place I must admit that I was unfamiliar with the observations of Xambou at the time of writing my previous note, although they were soon afterward called to my attention by Mr. Nathan Banks who cited them some years ago.³ In the same paper, Banks gives another

¹ 1917, No. 10, p. 178, May 1917.

² Adult Hymenopterous Parasites Attached to the Body of their Host. *Proc. Nat. Acad. Sci.*, Vol. 3, pp. 136-140, Feb. 1917.

³ *Entom. News*, Vol. 22, p. 195, 1911